

PATENT COOPERATION TREATY

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REC'D 13 OCT 2005

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WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

To:
NORTEL NETWORKS LIMITED
C/O: WITHROW, Benjamin S.
WITHROW & TERRANOVA, PLLC
Post Office Box 1287
Cary, North Carolina
United States, 27512

Date of mailing 03 October 2005 (03-10-2005)
(day/month/year)

Applicant's or agent's file reference
7000-424-01

FOR FURTHER ACTION
See paragraph 2 below

International application No.

PCT/IB2005/000730

International filing date (day/month/year)
21 March 2005 (21-03-2005)

Priority date (day/month/year)
19 March 2004 (19-03-2004)

International Patent Classification (IPC) or both national classification and IPC
IPC(7): H04L 12/26

Applicant
NORTEL NETWORKS LIMITED ET AL

1. This opinion contains indications relating to the following items :

- | | | |
|---|--------------|--|
| <input checked="" type="checkbox"/> [X] | Box No. I | Basis of the opinion |
| <input type="checkbox"/> [] | Box No. II | Priority |
| <input type="checkbox"/> [] | Box No. III | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability |
| <input type="checkbox"/> [] | Box No. IV | Lack of unity of invention |
| <input checked="" type="checkbox"/> [X] | Box No. V | Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |
| <input type="checkbox"/> [] | Box No. VI | Certain documents cited |
| <input type="checkbox"/> [] | Box No. VII | Certain defects in the international application |
| <input checked="" type="checkbox"/> [X] | Box No. VIII | Certain observations on the international application |

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/CA
Canadian Intellectual Property Office
Place du Portage I, C114 - 1st Floor, Box PCT
50 Victoria Street
Gatineau, Quebec K1A 0C9
Facsimile No.: 001(819)953-2476

Date of completion of this opinion
21 September 2005 (21-09-2005)

Authorized officer
Georges Matar (819) 994-6366

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INTERNATIONAL SEARCHING AUTHORITY**

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Box No. I Basis of this opinion

1. With regard to the **language**, this opinion has been established on the basis of:

- ☒ the international application in the language in which it was filed
- ☐ a translation of the international application into _____, which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of :

a. type of material

- ☐ a sequence listing
- ☐ table(s) related to the sequence listing

b. format of material

- ☐ on paper
- ☐ in electronic form

c. time of filing/furnishing

- ☐ contained in the international application as filed.
- ☐ filed together with the international application in electronic form
- ☐ furnished subsequently to this Authority for the purposes of search.

3 ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statement that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

4. Additional comments :

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Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims <u>1-22</u>	YES
	Claims <u>none</u>	NO
Inventive step (IS)	Claims <u>11, 22</u>	YES
	Claims <u>1-10, 12-21</u>	NO
Industrial applicability (IA)	Claims <u>1-22</u>	YES
	Claims <u>none</u>	NO

2. Citations and explanations :

Reference is made to the following documents cited in the International Search Report:

D1: CA 2 336 699 A1 (Segura et al.) 13 January 2000
D2: WO 2004/019568 A2 (Wielgosz et al.) 4 March 2004

2.1 Novelty:

Claims 1 and 12 are new because no single prior art document discloses a step of sending information identifying local functions capable of being provided by a given node to traffic in a communication path and furthermore, determining whether any of the local functions should be applied to the traffic based on criteria available to the given node and other nodes forming part of the communication path. Claims 2-11 and 13-22 are also considered new since they depend on claims 1 and 12, respectively. Therefore, claims 1-22 meet the requirements of Article 33(2) PCT.

2.2 Inventive Step:

2.2.1 Since the following feature "how the one or more local and remote functions are applied" found in claims 1 and 12, is vague and does not clearly define the subject matter to which protection is sought (see Box No. VIII, point 1 for more details), the examiner will not consider this feature when ascertaining the inventive step of claims 1 and 12.

2.2.2 The subject matter of claims 12-21 does not involve an inventive step under Article 33(3) PCT in view of D1 and D2:

Regarding claim 12, and using the wording of this claim, document D1 discloses, (the references in parenthesis refer to features or paragraphs found in document D1):

A communication node (see Fig. 2: "own exchange 11") forming part of a communication path (see Fig. 2: "own exchange 11, cooperating exchange 1 and cooperating exchange 2") comprising:
an interface (implicit);
a control system (implicit) adapted to:
send first information identifying local functions capable of being provided to traffic in the communication path by the communication node (see page 3, lines 18 - 20: "When a new node is introduced in the network, or is updated, the node declares its capabilities to the network". And page 3, lines 20 - 24: "The information that the new node declares may include the functionality supported"); and

(Continued in first Supplemental Box)

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Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made :

The following claims are not clear and concise (Article 6 PCT) for the following reasons:

1. The expression "the criteria defines how the one or more local and remote functions are applied" found in claims 1 and 12, is vague and leaves the reader in doubt as to the meaning of the technical feature to which it refers. Also, this expression creates an inconsistency between these claims and the description. The present description (see for example parag. [0024]) states that the criteria defines which node is given priority to implement a particular function in light of the capabilities of the other nodes (i.e. which node is given priority to implement a particular function). Accordingly, claims 1 and 12 should be modified to clearly define the subject matter to which protection is sought and in order to be consistent with the description. This remark applies also to claims 8 and 19 containing a similar expression;
2. Claim 1, the term "the given" page 11, line 17, has no antecedent. This term should read -the given node-;
3. Claim 11, the expression "the one or more local and remote nodes" page 12, lines 21-22, has no antecedent. This expression should read -the given node and other nodes-; and
4. Claims 16-18 and 22, the expression "the one or more other nodes" has no antecedent.

The description does not disclose the invention in a manner sufficiently clear and complete for the invention to be carried out (Article 5 PCT). The document referred to in paragraph [0001] is incorporated by reference and also was not opened to the public at the filing date of the present application.

Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Continuation of: **Box No. V**

receive second information identifying remote functions capable of being provided to the traffic by other nodes forming part of the communication path (see page 3, lines 31-32: "Similarly, any existing nodes with which the new node interacts send to the new node information regarding the capabilities of the responding existing nodes").

Claim 12 of the present application adds that the control system determines whether any of the one or more local functions should be applied to the traffic based on criteria which is available to the communication node and the other nodes. While this feature is absent from document D1, it is however well disclosed in document D2, which relates to data flow control in a packet data transmission system.

Specifically, document D2 discloses a method and device for data flow control in a packet data transmission system wherein, when a data packet is present at the input of a node, the method (or device) determines whether any of the node local functions should be applied to the traffic based on criteria that is available to each node of the network (see D2, page 3 lines 2 - 6: "executing a node function to the packet available at the node input based on rules available at the node").

It is therefore considered that a person skilled in the art of telecommunication and the field of exchanging information between nodes of a communication path, and who is aware of D1 and D2, would not need an inventive activity to include the determining step as taught by D2 in the communication node of D1 and arrive at the subject matter of claim 12. The subject matter of claim 12 does therefore not meet the requirements of Article 33(3) PCT having regard to D1 and D2.

The additional features of dependent **claims 13-21** do not add any inventive step because they are either known from D1 or D2 or constitute normal design detail for the person skilled in the art of telecommunication and therefore would not render the aforementioned claims conform to Article 33(3) PCT. Specifically:

Regarding **claim 13**, see D2, page 3, lines 4-6: "if the input rules apply to the packet, the commands, determined by the rules, are executed and then the node function is performed".

Regarding **claims 14-18**, see D1, Figure 2 and page 6, lines 4 - 16: "transfer the exchange information from one exchange to another . . . The own exchange then updates its exchange data at 16".

Regarding **claim 19**, see D2, page 2, lines 11 - 12: "The rules define transmission units to be modified by specifying a label, a type or a size of a packet included in a given transmission unit".

Regarding **claim 20**, see D2, page 4, lines 15 - 17: "supplying data in various formats, for example it may be audio and/or video frames".

Regarding **claim 21**, see D1, page 4, line 16 - page 5, line 7: "capabilities of the cooperating exchange may include pre-routing call setup".

2.2.3 Similarly, **claims 1-10**, which relate to an equivalent subject matter as of claims 12-21 but in terms of a method, do not meet the requirements of Article 33(3) PCT for the same reasons as stated earlier in point 2.2.2.

2.2.4 For the purpose of determining the inventive step of claims 11 and 22, the expressions "the one or more local and remote nodes" (claim 11) and "the one or more other nodes" (claim 22) which lack proper antecedents, would be considered as if they read -the given node and other nodes- and -the other nodes-, respectively, believed to be the applicant's intention and for which antecedence basis exists. Therefore:

(Continued in second Supplemental Box)

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Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Continuation of: First Supplemental Box

The subject matter of claim 11 is considered to involve an inventive step under Article 33(3) PCT because the following feature "wherein certain of the local and remote functions are identical, the criteria defining selection indicia determining which of the given node and other nodes is giving priority" is neither taught nor suggested by any of the prior art documents and it is not considered to be reasonably inferred from any of these documents. Same remark applies to claim 22 containing a similar expression.

Thus, claims 11 and 22 contain an inventive subject matter and meet the requirements of Article 33(3) PCT.

2.3 Industrial Applicability:

The subject matter of claims 1-22 is considered to be industrially applicable and thus meets the requirements of Article 33(4) PCT.